CLAIMS

What is claimed is:

1. A method of performing signaling between a first portion of a communications apparatus and a second portion of the communications apparatus, comprising: encoding data units of a given number of bits to form codes, each code being a data unit of a number of bits greater than the given number of bits; defining multiple different types of information exchanges and assigning a different code to each type of information exchange; and for a given information exchange: forming a message frame in accordance with the information exchange type selected, the message including a code identifying the information exchange type; and transmitting the message frame between the baseband portion and the radio portion.

2. The method of claim 1 wherein the first portion of the communications apparatus is a baseband portion and the second portion of the communications apparatus is a radio portion.

3. The method of claim 1 wherein the first portion of the communications apparatus is a physical layer portion and the second portion of the communications apparatus is a medium access control portion.

4. The method of claim 1 wherein sample data and control information are exchanged between the radio portion and the baseband portion, the sample data and control information being exchanged using different defined types of information exchanges.

5. The method of claim 4 wherein a data streaming exchange comprises sending from one of the radio portion and the baseband portion to the other one of the radio portion and the baseband portion multiple data sample fields in immediate succession.

6. The method of claim 4 wherein at least one of a number of data samples within a data sample field and a number of data bits per data sample is programmable.

7. The method of claim 4 wherein a number of data samples within a data sample field and a number of data bits per data sample are both programmable.

8. The method of claim 5 wherein a code assigned to a data streaming exchange is inserted between selected data sample fields to achieve a desired overall data rate

9. The method of claim 8 wherein a control information exchange including a corresponding code is inserted between selected data sample fields so as to achieve a desired overall data rate.

10. The method of claim 4 wherein multiple different types of control information exchanges are defined.

11. The method of claim 1 wherein the codes convey both data or control information and timing information.

12. The method of claim 11 wherein the codes are 8b/10b codes.

13. The method of claim 12, wherein a control information exchange including a corresponding code is inserted between selected 8b/10b data words so as to achieve a desired overall data rate.

14. The method of claim 11 wherein at least one of the following is defined: an idle code indicating an idle condition and a resync code having a particularly distinctive pattern of ones and zeros.

15. The method of claim 11 wherein both of the following are defined: an idle code indicating an idle condition and a resync code having a particularly distinctive pattern of ones and zeros.

16. The method of claim 15 wherein an idle stream is transmitted, comprising multiple idle codes occurring in immediate succession.

17. The method of claim 16, wherein a sleep mode is automatically entered upon transmission or reception of a predetermined number of consecutive idle codes.

18. The method of claim 16 wherein a control information exchange including a corresponding code is inserted between selected idle codes.

19. The method of claim 1, comprising selectively adding CRC information to a message frame depending upon importance of the message frame.

20. The method of claim 1, comprising: detecting a transmission error; and in response to the transmission error, initiating a control information exchange reporting the transmission error.

21. The method of claim 1, comprising: initiating a first control information exchange; and prior to conclusion of the first control information exchange, initiating a second control information exchange of higher priority.

22. A circuit for wireless communications having an interface circuit for interfacing to another circuit also for wireless communications, the interface circuit comprising: encoding circuitry encoding data units of a given number of bits to form codes, each code being a data unit of a number of bits greater than the given number of bits; control circuitry for defining multiple different types of information exchanges and

assigning a different code to each type of information exchange; framing circuitry for forming a message frame in accordance with the information exchange type selected, the message including a code identifying the information exchange type; and transmit circuitry for transmitting the message frame between the one circuit and the other circuit.

23. The interface circuit of claim 22 wherein the one circuit and the other circuit are a baseband portion of a communications apparatus and a radio portion of the communications apparatus.

24. A circuit for wireless communications having an interface circuit for interfacing to another circuit also for wireless communications, the interface circuit comprising: receive circuitry for receiving a message frame communicated between the one circuit and the other circuit, the message frame including a code identifying an information exchange type; decoding circuitry decoding codes to obtain data units of a given number of bits, each code being a data unit of a number of bits greater than the given number of bits; control and deframing circuitry for detecting multiple different types of information exchanges in accordance with different codes assigned to respective types of information exchange and for extracting information from the message frame in accordance with a detected information exchange type.

25. The interface circuit of claim 24 wherein the one circuit and the other circuit are a baseband portion of a communications apparatus and a radio portion of the communications apparatus.